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(12) **United States Patent**
Bowles, Jr. et al.(10) **Patent No.:** **US 6,953,511 B2**
(45) **Date of Patent:** **Oct. 11, 2005**(54) **METHOD FOR HIGH DEFINITION DIP
TRANSFER PRINTING AND ARTICLE
MADE ACCORDING TO METHOD**(75) **Inventors:** **Royce J. Bowles, Jr.,** Fortson, GA
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Columbus, GA (US)(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 211 days.(21) **Appl. No.:** **09/901,210**(22) **Filed:** **Jul. 9, 2001**(65) **Prior Publication Data**

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(51) **Int. Cl.:** **B44C 1/175; B41M 3/12;**
B41M 1/14; B05D 1/38; B05D 1/20(52) **U.S. Cl.:** **156/230; 156/236; 156/240;**
156/277; 427/146; 427/149; 427/262; 427/434.3;
118/402; 101/34; 101/171; 101/211; 101/481(58) **Field of Search:** **156/230, 236,**
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262, 147, 144, 256, 258, 264, 267, 271,
272, 430.1; 101/33, 34, 481, 171, 211;
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Primary Examiner—J. A. Lorenzo(74) *Attorney, Agent, or Firm*—Peter G. Pappas, Esq.;
Sutherland Asbill & Brennan LLP(57) **ABSTRACT**Method for high definition printing to be dip transferred to
a three-dimensional article comprises four color process
printing a digital image from a digital image file onto a water
soluble polymer film with solvent based ink to form a
printed water soluble film and dip transfer printing the
solvent based ink image through transcription on the surface
of the article. The method is suitable for printing three-
dimensional articles of a variety of shapes with high
definition, photographic-quality images. The method is
particularly suitable for decorating articles with complex
images such as camouflage patterns.**13 Claims, No Drawings**